

1. In a method for recovering potable water from the exhaust gases from an internal combustion engine, comprising the steps of:

(a) cooling said exhaust gases so as to cause water to condense from said exhaust gases; followed by

5 (b) passing said water through one or more particulate filters having a maximum pore size of from about 0.1 to about 10 microns;

(c) passing said water through one or more activated carbon filter beds; and

(d) passing said water through one or more ion exchange resin filter beds;

the improvement which comprises, prior to step (d), treating said water so as to reduce the

10 levels of nitrates, sulfates, acidic and other organic components therein.

2. The method according to Claim 1 wherein said treatment is carried out by passing said water through a flow through capacitor.

3. The method according to Claim 1 wherein said treatment is carried out by passing said water through an electrochemical cell or treating it by reverse osmosis.

4. The method according to Claim 2 wherein said nitrates, sulfates, acidic and other organic components are reduced to below detectable limits by said treatment.

5. The method according to Claim 2 wherein the water has an ionic conductivity of from about 10 to about 80 micro S/cm, after treatment with the capacitor.

6. The method according to Claim 5 wherein the water has an ionic conductivity of from about 10 to about 50 micro S/cm, after treatment with the capacitor.

7. The method according to Claim 6 wherein the water has an ionic conductivity of from about 10 to about 30 micro S/cm, after treatment with the capacitor.

8. A method for recovering potable water from the exhaust gases from an internal combustion engine, comprising the steps of:

(a) cooling said exhaust gases so as to cause water to condense from said exhaust gases; followed by the following steps carried out in any order:

5 (b) passing said water through one or more particulate filters having a maximum pore size of from about 0.1 to about 10 microns;

(c) passing said water through a treatment to oxidize/remove organics, selected from a flow through capacitor, an electrochemical cell, reverse osmosis, and combinations thereof;

10 (d) passing said water through one or more activated carbon filter beds; and

(e) passing said water through one or more ion exchange resin filter beds;

provided step (c) is carried out prior to step (e).

9. The method according to Claim 8 wherein after step (c) the water has an ionic conductivity of from about 10 to about 80 micro S/cm.

10. In an apparatus for recovering the exhaust gases of an internal combustion engine comprising a means for connecting said apparatus to the exhaust portal of said engine; a means for cooling the exhaust gases so as to cause the water in said gases to condense; a means for collecting said water and channeling it to a purification system which comprises

5 one or more particulate filters having an average pore size of from about 0.1 to about 10

microns, one or more activated carbon filter beds, and one or more ion exchange resin beds; and means for collecting the water which has passed through said purification system; the improvement which comprises the inclusion in said purification system of a means for reducing the level of nitrates, sulfates, acidic and other organic components in said water  
10 prior to passing said water through said one or more ion exchange resin beds.

11. The apparatus according to Claim 10 wherein said means for reducing nitrates, sulfates, acidic and other organic components comprises a flow through capacitor.

12. The apparatus according to Claim 11 wherein said means for reducing nitrates, sulfates, acidic and other organic components reduces the ionic conductivity of the water to from about 10 to about 80 micro S/cm.